CLAIMS

1. Device for filtering tobacco smoke from a tobacco product, comprising a housing in which the tobacco product can be arranged, and a filter for filtering tobacco smoke, the housing comprising:

- a tobacco reservoir for holding tobacco,
- an outside air feed for feeding from the environment outside air necessary for the combustion of the tobacco,
- a tobacco smoke discharge for discharging tobacco smoke caused by the combustion,
- a filter connected to the tobacco smoke discharge for filtering substances harmful to the environment from the tobacco smoke which can be guided therealong,
- a mouthpiece which is connected to the tobacco reservoir and the smoke discharge and with which a smoker can inhale the tobacco smoke from the tobacco reservoir and can exhale the tobacco smoke to the tobacco smoke discharge.

2. Device as claimed in claim 1, wherein the tobacco smoke discharge and the tobacco reservoir are arranged relative to each other for generating, as a result of convection, one or more forced gas flows in the smoke discharge, by which flow tobacco smoke is continuously discharged.

3. Device as claimed in claim 1, comprising gas displacing means for generating one or more forced gas flows in the smoke discharge, by which flow tobacco smoke is discharged.

4. Device as claimed in claim 3, comprising suction means arranged in the smoke discharge for drawing smoke out of the tobacco reservoir.

5. Device as claimed in claim 3 or 4, wherein the gas displacing means comprise one or more fans.

6. Device as claimed in claim 3 or 4, wherein the gas displacing means comprise one or more pumps, preferably pumps of the centrifugal type or the membrane type.

7. Device as claimed in claim 5, wherein the fan can be driven with an electric motor and in the housing there is provided a compartment in which an electric power supply, in particular one or more batteries, can be accommodated.

8. Device as claimed in any of the foregoing claims, comprising regulating means for guiding the gas flows through the smoke discharge and the mouthpiece.

9. Device as claimed in claim 8, wherein the regulating means comprise at least a first non-return valve between the tobacco reservoir and the smoke discharge, at least a second non-return valve between the tobacco reservoir and the mouthpiece and at least a third non-return valve between the mouthpiece and the smoke discharge.

10. Device as claimed in claim 9, wherein the non-return valves are adapted, in a standby situation in which the tobacco has been lit and no inhalation or exhalation is taking place, to allow through the gas flow from the tobacco reservoir to the smoke discharge and to prevent the gas flow from the reservoir to the mouthpiece.

11. Device as claimed in claim 9 or 10, wherein the non-return valves are adapted, in an inhaling situation where tobacco smoke is being inhaled by a user via the mouthpiece, to allow through the gas flow from the reservoir to the mouthpiece.

12. Device as claimed in claim 9, 10 or 11, wherein the non-return valves are adapted, in an exhaling situation where the user exhales the inhaled air via the mouthpiece, to prevent the gas flow from the mouthpiece to the reservoir and allow through the gas flow from the mouthpiece to the to the smoke discharge.

13. Device as claimed in any of the claims 8-12, wherein the regulating means comprise a closing membrane with which the throughfeed in a determined direction can be prevented and the throughfeed in the opposite direction can be left substantially clear.

14. Device as claimed in any of the foregoing claims, which is adapted, in a standby situation in which the tobacco has been lit and no inhalation or exhalation is taking place, for forced discharge of the tobacco smoke via the tobacco smoke discharge.

15. Device as claimed in claim 14, which is adapted, also in an exhaling situation where at least a part of the inhaled air is being exhaled by the user via the mouthpiece, for forced discharge of the tobacco smoke via the tobacco smoke discharge.

16. Device as claimed in any of the foregoing claims, wherein the tobacco smoke discharge comprises a first discharge channel for discharging tobacco smoke in the standby situation and a second discharge channel for discharging the tobacco smoke exhaled in the exhaling situation.

17. Device as claimed in claim 16, wherein a fan is arranged in the first discharge channel.

18. Device as claimed in claim 16 or 17, wherein the first and second discharge channel are combined to form a single smoke discharge channel and the fan is arranged in the combined smoke discharge channel.

19. Device as claimed in any of the foregoing claims, wherein at the position of the tobacco reservoir the housing comprises a removable closing cover to enable placing of tobacco in the tobacco reservoir, and wherein the outside air feed is formed by a number of throughflow openings provided in the closing cover.

20. Device as claimed in any of the foregoing claims, wherein the outside air feed comprises an air passage extending from the outside of the housing to the tobacco reservoir.

21. Device as claimed in claim 20, wherein the air passage is embodied to enable lighting of the tobacco via the passage.

22. Device as claimed in any of the foregoing claims, wherein the pressure caused by a fan is lower than the pressure caused by inhalation by the user.

23. Device as claimed in claim 2 or 3, wherein the forced gas flow has a flow rate of a maximum of 10% of the flow rate of the gas flow resulting from inhalation or exhalation.

24. Device as claimed in any of the foregoing claims, comprising holding means for holding the tobacco product such as a cigarette or a cigar.

25. Device as claimed in any of the foregoing claims, wherein the tobacco product is rolling tobacco.

26. Device as claimed in any of the foregoing claims, which can be held by the mouth of a person.

27. Device as claimed in claim 26, wherein the total weight amounts to a maximum of 1 kg, preferably a maximum of 300 g.

28. Device as claimed in any of the foregoing claims, also comprising a supply compartment for temporary storage of additional tobacco.

29. Device as claimed in any of the foregoing claims, also comprising a lighter compartment for storing a lighter with which the tobacco can be lit.

30. Device as claimed in any of the foregoing claims, comprising a switch for switching on one or more of the fans.

31. Device as claimed in any of the foregoing claims,

also comprising a detector arranged in or close to the tobacco reservoir for directly or indirectly detecting tobacco smoke, wherein the detector is coupled to the switch for switching on the one or more fans in the case of tobacco smoke and switching them off in the absence of tobacco smoke.

32. Device as claimed in any of the foregoing claims, comprising:

- a temperature sensor arranged in or close to the tobacco reservoir for generating a temperature signal representative of the temperature,

- control means coupled to the temperature sensor, the one or more fans and/or to the switch for switching on the one or more fans above a preset temperature and switching them off below a preset temperature, this on the basis of the temperature signal.

33. Device as claimed in any of the foregoing claims, wherein the filter comprises at least one of a mechanical filter unit, an absorption filter unit, an electrostatic filter unit, an ionization filter unit, a centrifugal filter unit, a UV filter unit or an ozone filter unit.

34. Device as claimed in claim 33, wherein the absorption filter unit comprises an active carbon filter unit.

35. Device as claimed in claim 33 or 34, wherein the filter comprises an electrostatic filter unit.

36. Device as claimed in claim 33, 34 or 35, wherein the filter comprises an ozone filter unit.

37. Device as claimed in claim 34, comprising a cathode and an anode between which the smoke can be guided for ionizing at least some of the substances in the smoke under the influence of an electric field between the cathode and anode, and collecting means for collecting the ionized substances.

38. Device as claimed in any of the foregoing claims, comprising means for generating aromatic substances.

39. Device as claimed in any of the foregoing claims, comprising a filter compartment which is provided in the housing and which can be closed off from the environment with a removable closing valve, wherein one or more replaceable filters can be placed in the filter compartment.

40. Device as claimed in any of the foregoing claims, wherein the tobacco reservoir is open at its top and along the upper edges thereof there are provided a number of openings connecting to the tobacco smoke discharge for the purpose of drawing off the smoke produced in the tobacco reservoir.

41. Device as claimed in any of the foregoing claims, wherein the housing is constructed from a first housing part and a second housing part, wherein at least the mouthpiece, the tobacco reservoir and the feed for outside air are arranged in the first housing part and wherein at least the tobacco smoke discharge, the filter and the gas displacing means are distributed over the first and second housing.

42. Method for filtering tobacco smoke from a tobacco product, comprising of:

- arranging the tobacco product in a tobacco reservoir in a housing provided with one or more filters for filtering tobacco smoke;

- lighting the tobacco product;

- continuously discharging gases containing tobacco smoke from the tobacco reservoir via a first tobacco smoke discharge provided in the housing, guiding the gases through said filter and subsequently discharging the filtered gases to the outside air;

- carrying gases containing tobacco smoke, during inhalation, from the tobacco smoke reservoir to a mouthpiece

connected to the housing;

- during exhaling of previously inhaled gases containing tobacco smoke, guiding the gases through the filter via the mouthpiece and a second tobacco smoke discharge provided in the housing, and subsequently discharging the filtered gases to the outside air.

43. Method as claimed in claim 40, comprising of generating one or more forced gas flows in the smoke discharge, the gases containing tobacco smoke being discharged by this flow.

44. Method as claimed in claim 41, comprising of drawing gases containing tobacco smoke substantially continuously from the tobacco reservoir to the tobacco smoke discharge and driving thereof through the filter.

45. Method as claimed in any of the claims 40-42, comprising of forced discharge of the tobacco smoke via the tobacco smoke discharge in a standby situation in which the tobacco has been lit and no inhalation or exhalation is taking place.

46. Method as claimed in any of the claims 40-43, for forced discharge of the tobacco smoke via the tobacco smoke discharge in an exhaling situation where at least a part of the inhaled air is being exhaled by the user via the mouthpiece.

47. Method as claimed in any of the claims 40-44, comprising of discharging tobacco smoke via the first smoke discharge in the standby situation and discharging the exhaled tobacco smoke via the second smoke discharge in the exhaling situation.

48. Method as claimed in any of the foregoing claims 40-45, wherein the first and second smoke discharges are combined.

49. Method as claimed in claim 41, comprising of

- providing a detector arranged in or close to the tobacco reservoir;

- directly or indirectly detecting tobacco smoke in the tobacco reservoir;

- generating said gas flows for discharging the tobacco smoke only when tobacco smoke is present.

50. Method as claimed in claim 41, comprising of:

- measuring the temperature in or close to the tobacco reservoir;

- generating said gas flows for discharging the tobacco smoke only at a preset maximum temperature or in the case of a maximum temperature increase.

51. Method as claimed in any of the foregoing claims 42-50, wherein a device according to any of the claims 1-41 is applied.